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**IN THE UNITED STATES  
PATENT AND TRADEMARK OFFICE**

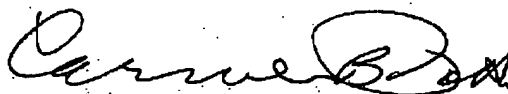
**Patent Application**

**Inventor(s):** Zhian Li  
**Case No.:** LUC-310/Li 2-7  
**Serial No.:** 10/027,781  
**Filing Date:** 12/21/2001  
**Title:** METHOD AND APPARATUS FOR PROVIDING CIRCUIT AND PACKET-SWITCHED CALLS ON A NETWORK

**Examiner:** Kerri M. Dyke  
**Art Unit:** 2667

**CERTIFICATE OF FACSIMILE TRANSMISSION**

I hereby certify that this correspondence is being sent via facsimile transmission to Commissioner for Patents, Mail Stop Amendment, Group Art Unit 2667, Attention: Examiner Kerri M. Dyke, P.O. Box 1450, Alexandria, VA 22313-1450, at fax number (571) 273-8300, on March 27, 2006.



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Date of Signature: March 27, 2006

Commissioner for Patents  
Mail Stop Amendment  
Group Art Unit 2667  
**Attention: Examiner Kerri M. Dyke**  
P.O. Box 1450  
Alexandria, VA 22313-1450  
Fax Number (571) 273-8300

**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

Dear Sir:

Applicants request review of the final rejection of this application. No amendments are being filed with this request. This request is being filed with a Notice of Appeal. The review is requested for the reasons stated on the attached sheets (not more than 5 pages).

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**REMARKS**

Applicants request Pre-Appeal Brief Review of the Final Office Action for the reasons stated below.

**Rejections Under 35 U.S.C. § 103 (a)**

Claims 1-6, 8, and 11-15 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Number 4,491,947 issued to Frank on January 1, 1985 in view of U.S. Patent Number 5,327,428 issued to Van As et al. on July 5, 1994.

Claims 7, 9 and 16-17 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Frank in view of U.S. Patent Number 4,556,972 issued to Chan et al. on December 3, 1985, and further in view of Van As et al.

Claim 10 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Frank in view of U.S. Patent Number 6,738,350 issued to Gao et al. on May 18, 2004, and further in view of Van As et al.

**Rejection Under Frank and Van As**

Claims 1-6, 8, and 11-15 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Frank in view Van As et al.

Applicants respectfully traverse this ground of rejection for the following reasons.

The Examiner proposes to combine Frank with Van As to achieve applicants' claim 1. The Examiner contends that it would have been obvious to one of ordinary skill in the art to allocate isochronous resources to circuits and asynchronous or synchronous resources to packets as taught by Van As, in response to the measure of the calls as taught by Frank, thereby arriving at the subject matter of applicants' claim 1. Applicants thus understand it to be the Examiner's position that it would have been obvious to modify the multi-beam satellite switched time division multiple accessed (SS/TDMA) system in Frank with Van As' technique for a collision free insertion and removal of circuit switched channels in a data structure carrying different classes of packet-switched traffic. Applicants assert that even if it were proper to combine the cited references, the resulting combination would not make obvious applicants' claims.

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First, applicants' claim 1 recites,

"A method comprising:

receiving, at a local switch, a plurality of calls that are comprised of at least one packet-switched call and at least one circuit-switched call;

determining a measure of the plurality of calls;

based on the measure of the plurality of calls, allocating to the at least one circuit-switched call a first set of resources from a plurality of resources between the local switch and a network switch and allocating to the at least one packet-switched call a second set of resources from the plurality of resources between the local switch and the network switch, and wherein the first set of resources and the second set of resources are different".

As stated in the Office Action, the Examiner agrees that Frank does not teach this limitation. Moreover, applicants note that Van As does not teach this limitation either. Instead, Van As discloses a technique for collision free insertion and removal of circuit switched channels in a data structure carrying different classes of packet-switched traffic. Van As' technique discloses the use of isochronous, synchronous, and asynchronous traffic types. Van As denotes circuit-switched channels by isochronous channels, and packet switched channels by synchronous or asynchronous channels. Furthermore, Van As discloses that the three traffic types, i.e., isochronous, synchronous, and asynchronous traffic types, differ in the variation of the end-to-end delay, as stated in column 3, lines 13-19.

However, Van As' traffic types are not resources as recited in applicants' claim 1. As known by those of ordinary skill in the art, "resources", as used in applicants' claim 1 refers to "the infrastructure used to provide services" rather than specific traffic types. Consequently, "wherein the first set of resources and the second set of resources are different" as recited in applicants claim 1 means the first set of infrastructure used to provide services and the second set of infrastructure used to provide services are different". Since the traffic types in Van As are not infrastructure used to provide services, Van As is missing the resources as recited in applicants' claim 1.

Second, the proposed combination of Frank with Van As does not reflect the specific limitations recited in applicants' claim 1 since the resultant system would not be a properly functioning system. Specifically, Frank's technique integrates circuit and

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packet switching in a single communications system to achieve economy by sharing transmission and switching equipment by means of dynamic scheduling, as stated in column 5, lines 21-27. In Frank's dynamic scheduling technique new circuits are assigned first, followed by packets, however, high priority packets may be assigned before circuits, as stated in column 5, lines 56-59.

Van As' technique does not share transmission and switching equipment, because Van As separates traffic types as isochronous channels, i.e., circuits, synchronous channels and asynchronous channels, i.e., packets, as stated in column 3, lines 4-25. Also, in contrast to the dynamic scheduling of circuits and packets taught by Frank, Van As' isochronous slots follow strict timing rules and can preempt both synchronous and asynchronous slots. Also, synchronous slots can bypass asynchronous slots, as stated in column 8, lines 35-55. Van As does not teach that either synchronous or asynchronous slots, i.e., packets, can be assigned before isochronous slots, i.e., circuits, as required for high priority packets by Frank. Thus, the system resulting from the proposed combination would not be a properly functioning system.

Accordingly, since a person skilled in the art would not look to combine the references as suggested and since the combination would not result in the invention as claimed, applicants submit that the combination and resultant rejection are improper, and therefore claim 1 is allowable over the proposed combination. Since claims 2-6 and 8 depend from allowable claim 1, these dependent claims are also allowable for the same reasons set forth above for independent claim 1.

Independent claims 11 and 16 each have a limitation similar to that of independent claim 1, which was shown is not taught by the proposed combination of Frank with Van As. For example, claim 11 recites, "wherein the at least one circuit-switched call is allocated a first set of resources from the plurality of resources and the at least one packet-switched call is allocated a second set of resources from the plurality of resources, and wherein the first set of resources and the second set of resources are different" and claim 16 recites "wherein the circuit-switched calls are allocated a first set of resources from the plurality of resources and the packet-switched calls are allocated a second set of resources from the plurality of resources, and

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wherein the first set of resources and the second set of resources are different". The proposed combination of Frank and Van As does not teach these limitations for the above-mentioned reasons. Therefore, claims 11 and 16 are likewise allowable over the proposed combination. Since claims 12-15 depend from claim 11, and claim 17 depends from claim 16, these dependent claims are also allowable over the proposed combination.

Rejections Under Frank, Van As, Chan, and Gao

Claims 7, 9 and 16-17 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Frank in view of Chan et al., and further in view of Van As et al.

Claim 10 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Frank in view of Gao et al., and further in view of Van As et al.

Applicants respectfully traverse these grounds of rejection.

With respect to claims 7, 9-10 and 16-17, Frank and Van As do not teach or suggest applicants' limitation calling for, "based on the measure of the plurality of calls, allocating to the at least one circuit-switched call a first set of resources from a plurality of resources between the local switch and a network switch and allocating to the at least one packet-switched call a second set of resources from the plurality of resources between the local switch and the network switch, and wherein the first set of resources and the second set of resources are different" as recited in applicants' claim 1, and Frank and Van As do not teach or suggest "wherein the circuit-switched calls are allocated a first set of resources from the plurality of resources and the packet-switched calls are allocated a second set of resources from the plurality of resources, and wherein the first set of resources and the second set of resources are different" as recited in independent claim 16 for the above-mentioned reasons. The Office Action does not cite Chan or Gao as supplying these elements, and applicants agree that they do not supply these element. Since claims 7 and 9-10 depend from claim 1, and claim 17 depends from claim 16, these dependent claims are allowable over the proposed combinations under 35 U.S.C. §103(a).

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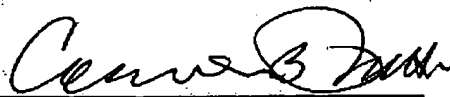
Conclusion

In view of the above remarks, withdrawal of the rejections and/or reversal of the rejections of all claims pending is respectfully requested.

If a telephone conference would be of assistance in advancing the prosecution of this application, feel free to call applicants' attorney.

Respectfully submitted,

By



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Dated: March 27, 2006

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